AMENDMENTS TO THE CLAIMS

Claim 1. (previously presented) A light conversion apparatus comprising:

a germanium-based photodiode; and

a polysilicon-based receiving electrode for receiving light to be converted by the photodiode, the receiving electrode being coupled with the photodiode, the receiving electrode permitting the received light to substantially pass through the receiving electrode to the photodiode, the photodiode converting the received light into an electrical signal.

Claim 2. (original) The apparatus as defined by claim 1 wherein the receiving electrode is doped.

Claim 3. (original) The apparatus as defined by claim 2 wherein the receiving electrode is doped with an n-type dopant.

Claim 4. (cancelled)

Claim 5. (original) The apparatus as defined by claim 1 further comprising a bottom electrode coupled to the photodiode, the apparatus further having a voltage between the top and bottom electrodes.

Claim 6. (original) The apparatus as defined by claim 1 further including a waveguide coupled with the receiving electrode.

Claim 7. (original) The apparatus as defined by claim 1 wherein the photodiode has a p-type doped region, an n-type doped region, and an intrinsic region between the two doped regions, the receiving electrode being one of n-type or p-type doped, the receiving electrode being coupled closer to the doped region of the photodiode having a like doping to it than to the doped region of the photodiode having a different doping.

Claim 8. (previously presented) A light conversion apparatus comprising:

a germanium-based photodiode having an n-type region that is doped with n-type dopant and a p-type region that is doped with p-type dopant; and

a polysilicon-based receiving electrode doped with one of an n-type or a p-type dopant, the receiving electrode receiving light to be converted by the photodiode and permitting the received light to substantially pass through the receiving electrode to the photodiode, the receiving electrode being coupled closer to the doped region of the photodiode having a like doping to it than to the doped region of the photodiode having a different doping.

Claim 9. (original) The apparatus as defined by claim 8 wherein the receiving electrode is doped with an n-type dopant, the receiving electrode being coupled closer to the n-type region of the photodiode than to the p-type region of the photodiode.

Claims 10-11. (cancelled)

Claim 12. (original) The apparatus as defined by claim 8 further comprising a bottom electrode coupled to photodiode, the apparatus further having a voltage between the top and bottom electrodes.

Claim 13. (original) The apparatus as defined by claim 8 wherein the receiving electrode has a thickness of between about 0.1 and 0.3 microns.

Claim 14. (original) The apparatus as defined by claim 8 wherein the receiving electrode has no less than about a ninety percent concentration of polysilicon.

Claim 15. (original) The apparatus as defined by claim 8 wherein the receiving electrode includes polysilicon germanium.

Claim 16. (currently amended) A light conversion apparatus comprising:

a germanium-based photodiode; and

polysilicon-based means for receiving light to be converted by the photodiode and for

transmitting electrical signals produced by the photodiode to another component, the polysilicon-based means permitting the received light to substantially pass through it to the photodiode, the photodiode converting the received light it receives into an electrical signal.

Claim 17. (original) The apparatus as defined by claim 16 wherein the polysilicon-based means includes a receiving electrode comprised of at least ninety percent polysilicon.

Claim 18. (original) The apparatus as defined by claim 16 wherein the polysilicon-based means includes doped polysilicon.

Claim 19. (original) The apparatus as defined by claim 16 further comprising a bottom electrode having a voltage difference with the polysilicon-based means.

Claim 20. (cancelled)

Claim 21. (previously presented) The apparatus as defined by claim 1 wherein a doping process dopes a portion of the photodiode after the receiving electrode is coupled with the photodiode.